

Claims

- [c1] 1. A camera that can freely rotate with an angle of 360° , comprising:
a seat unit;
a plurality of conductive rolling units, allocated on one side of the seat;
a plurality of conductive lines, connected to the conductive rolling units corresponding thereto;
a camera unit, comprising a plurality of transmission traces in a form of a concentric circular structure on one surface thereof, the camera unit functioning as a plurality of terminals of the camera unit, wherein the terminals include a power source terminal and an optional signal input/output terminal; and
a connecting-fitting unit, mounting the camera unit on the seat unit, allowing the conductive rolling units to be in electrical contact with the corresponding transmission traces, and allowing the camera to freely rotate over the side of the seat that has the conductive rolling units.
- [c2] 2. The camera according to claim 1, further comprising a power source line and a signal line connected to the corresponding conductive rolling units of the seat to output signal and provide power required by the camera.
- [c3] 3. The camera according to claim 1, wherein each conductive rolling unit is corresponding to three of the conductive rolling units positioned with a 120° between each other.
- [c4] 4. The camera according to claim 1, wherein each conductive rolling unit comprises a conductive rolling wheel, a conductive rolling bearing of the conductive rolling wheel, and a supporting frame to support the conductive rolling bearing.
- [c5] 5. The camera according to claim 1, further comprising a motor to rotate the camera unit.
- [c6] 6. The camera according to claim 5, wherein the motor comprises a circuit board located on the other side of the camera.
- [c7] 7. The camera according to claim 1, wherein the connecting-fitting unit further comprises a bearing to allow the camera unit to freely rotate thereon.

[c8]

8. The camera according to claim 1, wherein the camera comprises either a suspension type or a desktop.

[c9]

9. A rotatable input/output terminal structure, applicable for power supply and signal input/output of an electronic apparatus, wherein the electronic apparatus is installed on a seat and has the function of freely rotating with an angle of 360° , the input/output terminal structure comprising:

a plurality of transmission traces formed on one side of the electronic apparatus, wherein the transmission traces have a concentric circular structure and are electrically connected to a plurality of terminals of the electronic apparatus, including a power source terminal and a optional signal input/output terminal;

a plurality of conductive rolling units, allocated on one side of the seat, wherein a position of each of the conductive rolling units is corresponding to one of the transmission traces, and when the electronic apparatus is installed on the seat, the conductive rolling units are in electric contact with the transmission traces to allow the electronic apparatus to rotate over the seat; and

a plurality of conductive lines, electrically connected to the conductive rolling units to provide a power source and a signal input/output to the electronic apparatus.

[c10]

10. A signal input/output method of a camera, comprising:
forming a plurality of transmission traces on one side of a camera unit, wherein the transmission traces have a concentric circular structure;

connecting the transmission traces to a plurality of corresponding terminals, wherein the terminals include a power source terminal and an optional signal input/output terminal;

providing a seat unit;

allocating a plurality of conductive rolling units on one side of the seat unit, wherein a position of each conductive rolling unit corresponds to a position of the corresponding transmission trace;

providing a plurality of conductive lines to connected to the conductive rolling units; and

mounting the camera unit on the seat to bring the conductive rolling units in

electrical contact with the transmission traces, wherein the camera unit can freely rotate over the seat.

- [c11] 11. The method according to claim 10, further comprising connecting the conductive rolling units to the corresponding conductive lines.
- [c12] 12. The method according to claim 10, further comprising a step of allocating a motor to the camera unit for rotating the camera.

11. The method according to claim 10, further comprising connecting the conductive rolling units to the corresponding conductive lines.